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PUT OUT NEW METALLURGICAL, FOUNDRY EQUIPMENT FOR USSR PLANTS

FLYING SHEAR TO ANSWER NEEDS OF AUTO-TRACTOR INDUSTRY -- Moscow, Vestnik Mashinostroyeniya, Dec 51

There has been an increase in the demand for high-duty equipment to serve thin-sheet rolling mills, especially in the automobile and tractor industry. In answer to this demand, the Staro-Kramatorsk Plant imeni Ordzhonikidze has designed and built 24 different machines, including a cylinder-type flying shear.

The shear attains a cutting speed of 3.8-17 meters per second with the sheets coming off the mill at a temperature of 700 degrees, which means that the machine can cut the sheet when the mill is running at high speed. Under high-speed rolling, the sheet is cut into 4- to 8-meter lengths. An accuracy of up to 20 millimeters is maintained by the electrical synchronization of the shear with the mill.

The shear's two steel cylinders, 660 and 832 millimeters in diameter respectively, have their journals mounted in roller bearings. The 3:4 ratio of the cylinder diameters is maintained in the transmission gears.

Blades which are secured to the cylinders come together with every quarter revolution of the smaller, upper cylinder, and cut the sheet of metal as it passes between them. The speed of the blades is not more than double the speed of the sheet.

The machine is powered by a KP-4-1.7 electric motor, with a capacity of 250 kilowatts at 1,250 revolutions per minute; it transmits motion to the cylinders through a Ts-050 two-stage cylindrical reduction unit.

The shear was designed by I. F. Borisov, working under the supervision of Moskvin, chief of the Bureau of Mill Design.

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Specifications are as follows:	
Thickness of sheet cut (mm)	1.5-6
Width of sheet cut (mm)	1,300
Yield strength of cooled strip at temperature of 20 degrees (kg/sq cm)	60
Temperature of metal being cut (degrees centigrade)	700
Cutting force (tons)	115
Length of blades (mm)	1,470
Speed of upper cylinder (rpm)	115-500
Transmission ratio of reduction unit	2.54

PRODUCE VIBRATING SHEARS -- Leningradskaya Pravda, 26 Sep 51

The /Leningrad?/ Vulkan Plant has begun production of electric vibrating shears designed by a group of the plant engineers. The shears are intended for cutting steel sheets up to 3 millimeters thick.

MILL SHOP SAVES METAL -- Moscow, Pravda, 16 Jan 52

The tube-mill shop of the Dnepropetrovsk Metallurgical Equipment Plant saved 90 tons of metal in the first half of January.

TO DOUBLE 1951 PRODUCTION -- Tallin, Sovetskaya Estoniya, 24 Jan 52

Equipment for sheet rolling mills for the Asha Metallurgical Plant was the first item to go into production at the Alma-Ata Heavy Machine Building Plant. The plant plans to establish production of 100 new types of machines and equipment for the metallurgical industry; this will be double the 1951 number. Units for 4-cubic-meter walking excavators will also be produced at the plant.

FEWER OPERATORS NEEDED FOR NEW MILL -- Moscow, Vechernyaya Moskva, 15 Feb 52

The Sverdlovsk Uralmash Plant has completed a large rolling mill, which will turn out railroad rails, H beams, U beams, and other stock. The entire production process of the new mill is mechanized. The number of workers needed to operate the mill, as compared to the number required for existing mills, will be reduced by about 40 persons.

NEW CRANE IS OF ALL-WELDED CONSTRUCTION -- Tallin, Sovetskaya Estoniya, 27 Dec 51

The Novo-Kramatorsk Machine Building Plant imeni Stalin has completed the first new foundry crane /of a series/. Of all-welded construction, it can hoist a 350-ton ladle of molten metal, move it at 63 meters per minute, and pour the metal into a mold.

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ESTABLISH PRODUCTION OF MOLDING, CASTING MACHINES -- Moscow, Moskovskaya Pravda, 25 Sep 51

During 1951 the Moscow Krasnaya Presnya Plant established the production of sand slingers which perform the entire molding cycle, machines for cleaning scale from parts, machines for chill casting pipes, and many other foundry aggregates.

Recently, the first models of a new roller-plow sand conditioner were completed. These machines put out 40 cubic meters of molding sand per hour, exceeding previous models in their high productivity.

Moscow, Vechernyaya Moskva, 11 Dec 51

The Moscow Krasnaya Presnya Plant recently put out a new die-casting machine which makes 1,000 nonferrous castings in 8 hours. Other new items include a cleaning device for cast pipes, and another one for cleaning sheet-metal edges.

During the past 11 months the plant put 13 new machines into production, though the plan called for only 11. A few days ago, the plant fulfilled the 1951 production plan, putting out many above-plan items, including several molding machines.

Moscow, Moskovskaya Pravda, 16 Jan 52

The Moscow Krasnaya Presnya Plant put 14 new types of foundry machines into production during 1951.

Recently, a new sand slinger was built at the plant. It sifts the sand, forces it into the flask, and squeezes the flask. Its five motors power the sand elevator, sifting screen, feed arm, impeller head, and hydraulic control system. 50X1-HUM

The machine may be fitted with either of two impeller heads, one used to prepare molds for steel castings, the other for iron-casting molds.

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